

**AMENDMENTS**

**IN THE CLAIMS:**

1. – 70. (canceled)
71. (new) A composition comprising an oil-in-water emulsion, comprising:
- a) a discontinuous oil phase;
  - b) an aqueous phase;
  - c) an alcohol;
  - d) a surfactant; and
  - e) a halogen-containing compound.
72. (new) The composition of Claim 71, wherein said oil phase comprises a plant oil.
73. (new) The composition of Claim 72, wherein said plant oil is selected from the group consisting of soybean oil, avocado oil, flaxseed oil, coconut oil, cottonseed oil, squalene oil, olive oil, canola oil, corn oil, rapeseed oil, safflower oil, and sunflower oil.
74. (new) The composition of Claim 71, wherein said oil phase comprises an oil selected from the group consisting of fish oil, flavor oil, water insoluble vitamins, and mineral oil.
75. (new) The composition of Claim 71, wherein said oil phase comprises motor oil.
76. (new) The composition of Claim 71, wherein said oil phase comprises 30-90 vol% of the oil-in-water emulsion.
77. (new) The composition of Claim 71, wherein said oil phase comprises 50-80 vol% of the oil-in-water emulsion.
78. (new) The composition of Claim 71, wherein said aqueous phase comprises water.

79. (new) The composition of Claim 71, wherein said aqueous phase comprises phosphate buffered saline.
80. (new) The composition of Claim 71, wherein said alcohol comprises ethanol.
81. (new) The composition of Claim 71, wherein said surfactant comprises a polysorbate surfactant.
82. (new) The composition of Claim 71, wherein said surfactant comprises a pxeoxypolyethoxyethanol.
83. (new) The composition of Claim 71, wherein said surfactant comprises sodium dodecyl sulfate.
84. (new) The composition of Claim 71, wherein said halogen-containing compound comprises cetylpyridinium chloride.
85. (new) The composition of Claim 71, wherein said halogen-containing compound is selected from the group consisting of cetylpyridinium halides, cetyltrimethylammonium halides, cetyldimethylethylammonium halides, cetyldimethylbenzylammonium halides, cetyltributylphosphonium halides, dodecyltrimethylammonium halides, tetradecyltrimethylammonium halides, cetyltrimethylammonium chloride, cetylbenzyltrimethylammonium chloride, cetylpyridinium bromide, cetyltrimethylammonium bromide, cetyldimethylethylammonium bromide, cetyltributylphosphonium bromide, dodecyltrimethylammonium bromide, and tetradecyltrimethylammonium bromide.
86. (new) The composition of Claim 71, wherein said a halogen-containing compound is a quaternary ammonium compound.
87. (new) The composition of Claim 71, wherein said emulsion further comprises a germination enhancer.

88. (new) The composition of Claim 71, wherein said emulsion further comprises a phosphate based solvent.

89. (new) The composition of Claim 88, wherein said phosphate based solvent comprises tributyl phosphate.

90. (new) The composition of Claim 71, wherein said emulsion further comprises a component selected from the group consisting of a neutramingen, L-alanine, ammonium chloride, trypticase soy broth, yeast extract, L-ascorbic acid, lecithin, p-hydroxybenzoic acid methyl ester, sodium thiosulfate, sodium citrate, inosine, sodium hydroxide, dextrose, and polyethylene glycol.

91. (new) The composition of Claim 71, wherein said alcohol comprises ethanol, and wherein said surfactant comprises a pheoxypolyethoxyethanol.

92. (new) The composition of Claim 71, wherein said alcohol comprises ethanol, wherein said surfactant comprises a polysorbate surfactant, and wherein said halogen-containing compound comprises cetylpyridinium chloride.

93. (new) A method of making an oil-in-water emulsion comprising emulsifying a mixture, said mixture comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound.

94. (new) The method of Claim 93, wherein said oil is selected from the group consisting of soybean oil, avocado oil, flaxseed oil, coconut oil, cottonseed oil, squalene oil, olive oil, canola oil, corn oil, rapeseed oil, safflower oil, and sunflower oil.

95. (new) The method of Claim 93, wherein said oil is selected from the group consisting of fish oil, flavor oil, water insoluble vitamins, and mineral oil.

96. (new) The method of Claim 93, wherein said oil phase comprises motor oil.

97. (new) The method of Claim 93, wherein said alcohol comprises ethanol.

98. (new) The method of Claim 93, wherein said halogen-containing compound is selected from the group consisting of cetylpyridinium halides, cetyltrimethylammonium halides, cetyldimethylethylammonium halides, cetyldimethylbenzylammonium halides, cetyltributylphosphonium halides, dodecyltrimethylammonium halides, tetradecyltrimethylammonium halides, cetyltrimethylammonium chloride, cetylpyridinium chloride, cetylbenzyltrimethylammonium chloride, cetylpyridinium bromide, cetyltrimethylammonium bromide, cetyldimethylethylammonium bromide, cetyltributylphosphonium bromide, dodecyltrimethylammonium bromide, and tetradecyltrimethylammonium bromide.

99. (new) The method of Claim 93, wherein said mixture further comprises a germination enhancer.

100. (new) The method of Claim 93, wherein said mixture further comprises a phosphate based solvent.

101. (new) The method of Claim 93, wherein said mixture further comprises a component selected from the group consisting of a neutramingen, L-alanine, ammonium chloride, trypticase soy broth, yeast extract, L-ascorbic acid, lecithin, p-hydroxybenzoic acid methyl ester, sodium thiosulfate, sodium citrate, inosine, sodium hydroxide, and polyethylene glycol.

102. (new) The method of Claim 93, wherein said alcohol comprises ethanol, and wherein said surfactant comprises a phoxypolyethoxyethanol.

103. (new) The method of Claim 93, wherein said alcohol comprises ethanol, wherein said surfactant comprises a polysorbate surfactant, and wherein said halogen-containing compound comprises cetylpyridinium chloride.

104. (new) A method for protecting an area from pathogens, or decontaminating an area of pathogens, comprising exposing said area to a composition comprising an oil-in-water emulsion, said oil-in-water emulsion comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound.

105. (new) The method of Claim 104, wherein said area comprises a solid surface.

106. (new) The method of Claim 105, wherein said solid surface comprises a medical device.

107. (new) The method of Claim 104, wherein said area comprises a solution.

108. (new) The method of Claim 104, wherein said area comprises the surface of an organism.

109. (new) The method of Claim 108, wherein said organism comprises a human.

110. (new) The method of Claim 108, wherein said surface of an organism comprises an external surface of an organism.

111. (new) The method of Claim 108, wherein said surface of an organism comprises an internal portion of an organism.

112. (new) The method of Claim 104, wherein said area comprises a food product.

113. (new) The method of Claim 104, wherein said pathogens are selected from the list consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

114. (new) The method of Claim 104, wherein said pathogens are selected from two or more of the list consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

115. (new) A method of modifying an emulsion comprising:

- a) providing an oil-in-water emulsion, said oil-in-water emulsion comprising:
  - i) a discontinuous oil phase;
  - ii) an aqueous phase;
  - iii) an alcohol;
  - iv) a surfactant; and
  - v) a halogen-containing compound; and
- b) adding or removing a component from said emulsion to produce a modified emulsion.

116. (new) The method of Claim 115, further comprising the step of testing said modified emulsion in a biological assay.

117. (new) The method of Claim 116, wherein said biological assay comprises an antimicrobial assay.

118. (new) The method of Claim 115, further comprising the step of advertising the sale of said modified emulsion.

119. (new) The method of Claim 115, further comprising the step of selling said modified emulsion.

120. (new) A system comprising a delivery system containing an oil-in-water emulsion, said oil-in-water emulsion comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound.

121. (new) A system comprising a material in contact with an oil-in-water emulsion, said oil-in-water emulsion comprising:

- a) a discontinuous oil phase;
- b) an aqueous phase;
- c) an alcohol;
- d) a surfactant; and
- e) a halogen-containing compound.

122. (new) The system of Claim 121, wherein said material comprises a medical device.

123. (new) The system of Claim 121, wherein said material comprises a solution.

124. (new) The system of Claim 123, wherein said solution comprises a food product.

125. (new) The system of Claim 123, wherein said solution comprises a cleaning product.

126. (new) The system of Claim 123, wherein said solution comprises a motor oil.

127. (new) The system of Claim 121, wherein said material comprises biological material.

128. (new) The system of Claim 127, wherein said biological material comprises human tissue.

129. (new) The system of Claim 121, wherein said material comprises a food product.

130. (new) The system of Claim 121, wherein said material comprises a cream.